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ABSTRACT

The results of a survey administered to junior and senior high students in the Napa Valley (CA) Unified School District in 1980 are summarized. The questionnaire administered was the Drug and Alcohol Survey, a group administered, self-report instrument. The questionnaire assesses: (1) drug knowledge; (2) general drug attitudes; (3) perceived benefits and costs of using alcohol, marijuana, and pills; (4) personal attitudes and perceived peer attitudes toward specific substances; (5) perceived prevalence of specific substance use; (6) intentions to use specific substances; and (7) lifetime and current use of specific substances. Detailed results are presented in tabular form. (Author/GK)

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THE NAPA PROJECT

02 YEAR ANNUAL DRUG SURVEY

SUBMITTED TO:

NATIONAL INSTITUTE ON DRUG ABUSE

PREVENTION BRANCH

JULY, 1981

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THE NAPA PROJECT

02 YEAR ANNUAL DRUG SURVEY

Introduction

This report summarizes the results of a survey administered to junior and senior high students in the Napa Valley Unified School District (Napa, California) in April and May of 1980. The questionnaire administered was the Drug and Alcohol Survey (see Appendix A), a group administered, self-report instrument developed by the staff of the Napa Project. The questionnaire assesses a) drug knowledge, b) general drug attitudes (formerly called attitudes toward drug-related behavior), c) perceived benefits and costs of using alcohol, marijuana, and pills, d) personal attitudes and perceived peer attitudes toward specific substances, e) perceived prevalence of specific substance use, f) intentions to use specific substances, and g) lifetime and current use of specific substances. These substances are listed in Table 1, as are the alternate and "street" names provided in the questionnaire. In this report, we refer only to the substance name listed first in Table 1. The reader should keep in mind that alternate substance names also appeared on the survey instrument. Serotonin is not an available substance and was included in the questionnaire to provide an index of over-reporting.

TABLE 1

SPECIFIC SUBSTANCES CONTAINED WITHIN THE DRUG AND ALCOHOL SURVEY QUESTIONNAIRE AND THEIR ALTERNATE NAMES

SUBSTANCES	ADDITIONAL TERMS PROVIDED
alcohol	beer, wine, liquor
cigarettes	
marijuana	grass, pot, hash
inhalants	glue, snappers, poppers, gas
barbiturates, tranquilizers	sleeping pills, downers, barbs, tranks, soapers
amphetamines, stimulants	pep pills, uppers, beans, speed, crank
serotonin[1]	wagon wheels, bumpers
cocaine[2]	
PCP	angel dust, krystal
LSD, psychedelics	acid
heroin, morphine	smack, junk
pills	pep pills, sleeping pills, uppers, downers, soapers

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[1]The psychoactive substance serotonin is not available through pharmaceutical or illicit channels, and was used in the survey as an indication of over-reporting.

[2]The alternate term "coke" was purposely not used because pilot testing showed that this term is often confused with the beverage Coca-Cola.

Survey Administration Methodology

The survey was conducted by six carefully trained substitute teachers during single class sessions of 40-50 minutes. One make-up session was held in each school for students who were initially absent. At the junior high schools (grades 7-9), questionnaires had labels with student names on the cover sheet and student identification numbers on page one. In a prepared statement, administrators explained the need for identification numbers as a way of tracking students over time and assured students of confidentiality. To enhance confidentiality, students were instructed to tear off the cover page that displayed their names. At the senior high schools (grades 10-12), the questionnaires were administered without any identifying information to assure anonymity.

Survey Sample

There were 6168 students enrolled in the junior and senior high schools of the NVUSD at the time of the survey. The survey was conducted in a random sample of approximately one-half of all classes (N = 3107). Special education students in self-contained classes were not surveyed. Three percent of the sample (N = 100) were excused from the survey at the request of their parents, and eight percent (N = 241) were absent.

A total of 2766 (89%) of the survey sample completed the questionnaire. The sample consisted of 1363 males (49.3%), 1293 females (46.7%) and 110 students whose sex could not be identified (4.0%). It contained 1427 junior high students (51.6%) and 1339 high school students (48.4%).

Drug Knowledge, Attitudes, and Utilities

Table 2 presents summary statistics for eight scales created from items on the questionnaire. The scales are drug knowledge (Knowledge) (items 23, 27, 28, 31, 32, 36, 38), general drug attitudes (General Attitudes) (items 5-21), perceived benefits of alcohol use (Alcohol Benefits) (items 22a-22h), perceived costs of alcohol use (Alcohol Costs) (items 25a-25e), perceived benefits of marijuana use (Pot Benefits) (items 26a-26h), perceived costs of marijuana use (Pot Costs) (items 29a-29e), perceived benefits of pill use (Pill Benefits) (items 30a-30h), and perceived costs of pill use (Pill Costs) (items 34a-34e). The psychometric properties of these scales have been discussed in an earlier report (Moskowitz, Schaeffer, Condon, Schaps, and Malvin, Note 1).

The General Drug Attitudes scale consists of 17 statements that assess general attitudes toward licit and illicit substance use. Subjects responded to items on five-point scales ranging from "strongly agree" to "strongly disagree." The scale score is the mean response to the component items; a high score indicates a pro-drug orientation.

The perceived benefits of alcohol use (Alc Benefits), marijuana use (Pot Benefits), and "pill" use (Pill Benefits), and the perceived costs of using these same drugs (Alc Costs, Pot Costs, and Pill Costs) were each measured by separate scales. Each Benefits scale consisted of eight questions that described possible benefits (positive consequences) of using the substance. Subjects responded on four-point scales ranging from "does not help at all" to "helps very much" to indicate whether they saw the drug as instrumental in achieving the proposed benefits. Each Costs scale consisted of five statements that described possible adverse consequences of using the substance. Subjects responded on four-point

5.

TABLE 2

MEAN DRUG KNOWLEDGE, ATTITUDE AND UTILITY SCORES BY SEX AND BY SCHOOL LEVEL

Scale	Male		Female		Junior High		Senior High	
	$\bar{X}$	s.d.	$\bar{X}$	s.d.	$\bar{X}$	s.d.	$\bar{X}$	s.d.
Drug Knowledge	3.1	1.5	3.0	1.4	2.6	1.3	3.5	1.5
General Drug Attitudes	2.6	0.9	2.4	0.9	2.3	0.9	2.6	0.8
Alcohol Benefits	1.9	0.7	1.9	0.7	1.8	0.8	2.0	0.7
Alcohol Costs	2.2	0.7	2.2	0.7	2.1	0.7	2.3	0.6
Pot Benefits	2.0	0.9	1.9	0.8	1.9	0.9	2.0	0.8
Pot Costs	2.2	0.8	2.2	0.8	2.0	0.8	2.3	0.8
Pill Benefits	1.6	0.8	1.6	0.7	1.5	0.7	1.6	0.8
Pill Costs	1.8	0.8	1.8	0.7	1.7	0.7	1.9	0.8

scales ranging from "strongly agree" to "strongly disagree" that use of the drug will produce the adverse effects. Each scale score is the mean response to the component items; a high score indicates a pro-drug orientation (i.e., high positive consequences or low negative consequences).

The average score and standard deviation for each scale is presented for each sex and school level in Table 2. On the average, males scored slightly higher than females on the knowledge, general drug attitudes, alcohol costs, alcohol benefits, and pot benefits scales. These differences, although statistically significant ($p<.02$), are not particularly informative because sex accounted for no more than .7% of the variance in these measures.[3]

Senior high students generally scored higher than junior high students on each measure in Table 2. These school level differences are more substantial than the sex differences. School level accounted for 9% of the variance in drug knowledge scores, 4% of the variance in alcohol and pot costs, 3% of the variance in general drug attitudes and 2% of the variance in alcohol benefits and pill costs. Relative to junior high students, senior high students a) possessed greater drug knowledge, b) reported lesser costs for alcohol, marijuana and pills, c) reported greater benefits for alcohol, and d) had more positive attitudes toward drugs in general.

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[3]The statistic eta-squared (η^2) is the proportion of variance in the dependent variable explained by the independent variable. It assumes interval measurement of the dependent variable which is not warranted here. However, we feel that η^2 is a reasonable index which is not as subject to inflation due to large sample sizes as are the F-ratio and chi square. Virtually all of the comparisons in this report are statistically significant ($p<.01$) due to the large sample sizes. When a comparison results in η^2 greater than or equal to 1%, we refer to the difference as "notable."

Attitudes Toward Substances

Table 3 contains summary statistics for the attitudes toward substances items (3a-3k) for each sex and school level. High scores indicate a positive attitude toward a substance. Males were generally more positive toward alcohol, marijuana, cocaine, PCP, LSD, and heroin; however, these differences were small. The only notable difference was that females were less negative toward cigarettes than males. This sex difference accounted for about 2% of the variance. Senior high students were generally less negative than junior high students toward most substances. Among these differences the following were notable: attitudes toward alcohol (η^2 = 2.4%), marijuana (η^2 = 3.6%), cocaine (η^2 = 4.3%), and amphetamines (η^2 = 2.4%). Junior high students were less negative than senior high students toward heroin.

The percentage of students responding to the items in Table 3 was at least 98% with the exception of serotonin. For serotonin, the response rate was 96% and the ratings were generally negative. Because serotonin is not an available substance, responding students may have confused it with some other substance or may have had anti-drug attitudes in general. Response rates for the other questionnaire items were also very high, ranging from 92% to 100%.

Perceived Peer Attitudes Toward Substances

Table 4 shows summary statistics for perceived peer attitudes toward substance items (39a-39k) for each sex and school level. These items employed the same response format as the attitudes toward substance items. Females reported that their peers' attitudes were more positive toward all substances. Among these differences the following were notable: cigarettes, (η^2 = 2.8%), inhalants (η^2 = 1.4%), barbiturates (η^2 = 1.4%), and PCP (η^2 = 1.1%). As

TABLE 3

MEAN ATTITUDE TOWARD SUBSTANCES SCORES BY SEX AND BY SCHOOL LEVEL

Substance	Male			Female			Junior High			Senior High		
	$\bar{X}$	s.d.	response rate	$\bar{X}$	s.d.	response rate	$\bar{X}$	s.d.	response rate	$\bar{X}$	s.d.	response rate
Alcohol	2.9	1.0	99.4	2.8	0.9	99.7	2.7	1.0	98.1	3.0	0.9	99.3
Cigarettes	1.8	0.9	99.8	2.0	0.9	99.1	1.9	1.0	98.0	1.9	0.8	99.3
Marijuana	2.4	1.3	99.1	2.3	1.2	99.4	2.2	1.3	99.1	2.6	1.2	99.1
Inhalants	1.5	0.8	99.5	1.4	0.7	99.5	1.5	0.8	99.4	1.4	0.7	99.3
Barbiturates	1.6	0.9	99.6	1.6	0.8	99.5	1.5	0.9	99.4	1.6	0.9	99.3
Amphetamines	1.8	1.1	99.3	1.7	1.1	99.3	1.6	1.0	99.4	2.0	1.2	99.0
Serotonin	1.5	0.8	96.3	1.4	0.7	96.3	1.4	0.8	97.6	1.5	0.8	94.6
Cocaine	2.0	1.3	98.6	1.8	1.2	99.0	1.6	1.1	98.7	2.2	1.4	98.5
PCP	1.4	0.8	98.9	1.3	0.6	99.3	1.3	0.7	99.1	1.3	0.7	98.6
LSD	1.5	0.9	99.2	1.3	0.7	99.4	1.4	0.8	99.2	1.5	0.9	99.0
Heroin	1.3	0.7	99.4	1.2	0.6	99.1	1.3	0.8	99.0	1.2	0.6	99.1

TABLE 4

MEAN PERCEIVED PEER ATTITUDES TOWARD SUBSTANCES SCORES BY SEX AND BY SCHOOL LEVEL

Substance	Male			Female			Junior High			Senior High		
	$\bar{X}$	s.d.	response rate	$\bar{X}$	s.d.	response rate	$\bar{X}$	s.d.	response rate	$\bar{X}$	s.d.	response rate
Alcohol	3.3	1.1	98.1	3.4	1.0	98.9	3.1	1.2	98.1	3.6	0.9	98.7
Cigarettes	2.7	1.1	97.4	3.0	1.0	98.5	2.8	1.2	97.7	2.9	1.0	98.1
Marijuana	3.2	1.3	97.5	3.4	1.2	98.4	3.0	1.4	97.8	3.5	1.1	97.8
Inhalants	2.7	1.0	97.1	2.3	1.1	97.8	2.2	1.1	97.7	2.2	1.0	96.9
Barbiturates	2.1	1.1	97.4	2.4	1.1	97.8	2.2	1.1	97.8	2.3	1.0	97.2
Amphetamines	2.3	1.2	97.4	2.5	1.2	98.1	2.2	1.2	97.9	2.6	1.2	97.5
Serotonin	2.0	1.1	94.9	2.2	1.1	95.8	2.0	1.1	96.9	2.1	1.0	93.7
Cocaine	2.5	1.4	96.7	2.8	1.4	97.1	2.4	1.3	96.8	3.0	1.4	97.0
PCP	1.8	1.1	97.2	2.1	1.1	97.8	2.0	1.2	97.5	2.0	1.1	97.2
LSD	2.0	1.2	96.8	2.1	1.1	97.4	2.0	1.2	97.5	2.1	1.2	96.6
Heroin	1.8	1.1	97.4	2.0	1.1	97.4	2.0	1.1	97.5	1.8	1.0	97.2

compared to junior high students, senior high students perceived peer attitudes to be more positive toward most substances. Among these differences the following were notable: perceived peer attitudes toward alcohol (η^2 = 5.7%), marijuana (η^2 = 3.8%), amphetamines (η^2 = 2.5%), and cocaine (η^2 = 5.2%). Junior high students perceived more positive peer attitudes toward heroin than did senior high students although this difference was not notable.

Perceived peer attitude toward a substance was generally more positive than students' own attitude toward that substance. This indicates that students tended to overestimate their peers' drug attitudes. When the substances are ranked by their mean rating on the attitudes items and by the percieved peer attitudes items, the two rank orders are almost identical. Students' attitudes and percieved peer attitudes were least negative toward alcohol, followed by marijuana, cigarettes, cocaine, and amphetamines, and most negative toward heroin, then PCP and LSD.

Perceived Prevalence of Drug Use Among Peers

Table 5 summarizes the responses to the perceived prevalence of drug use items (items 43a-43k) for each sex. As compared to males, females reported that more students in their grade used each substance. Among these differences the following were notable: perceived prevalence of cigarette use (η^2 = 4.9%), inhalant use (η^2 = 1.4%), barbiturate use (η^2 = 1.3%), amphetamine use (η^2 = 1.5%), and cocaine use (η^2 = 1.0%). Table 6 shows the perceived prevalence of drug use by school level. Except for heroin, senior high students, relative to junior high students, generally reported that more students in their grade used each substance. Among these differences the following were notable: perceived

TABLE 5

PERCEIVED PREVALENCE OF DRUG USE AMONG PEERS BY SEX

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	About how many students in your grade use . . .						
	very few 0%	about 10%	about 25%	about 33%	about 50%	about 75-100%	response rate
MALE							
Alcohol	4.3	12.0	13.4	13.4	27.5	29.4	94.9
Cigarettes	5.1	13.1	17.7	24.7	26.1	13.2	94.9
Marijuana	6.6	13.8	15.2	19.2	25.3	19.9	93.8
Inhalants	38.4	35.3	15.0	6.0	2.9	2.4	93.7
Barbiturates	38.9	34.3	15.6	5.6	3.0	2.7	93.5
Amphetamines	35.8	32.7	15.3	8.0	4.2	4.0	93.8
Serotonin	54.8	28.5	8.0	3.6	1.9	3.2	91.9
Cocaine	32.0	30.4	13.9	10.8	6.7	6.2	93.8
PCP	58.5	25.9	6.5	3.8	2.7	2.7	93.8
LSD	53.1	27.3	8.8	4.2	3.2	3.4	93.5
Heroin	65.5	21.4	5.3	2.8	2.0	3.1	93.5
FEMALE							
Alcohol	2.9	7.7	12.0	13.3	28.9	35.1	97.3
Cigarettes	1.7	6.6	11.6	21.2	34.6	24.3	96.9
Marijuana	4.5	10.7	13.7	19.0	28.2	23.9	95.3
Inhalants	28.5	33.8	19.9	10.9	4.7	2.2	95.4
Barbiturates	28.5	34.0	19.5	11.3	5.0	1.7	95.8
Amphetamines	27.4	28.0	18.6	14.1	8.6	3.3	95.5
Serotonin	46.0	33.1	11.4	4.3	3.6	1.6	93.7
Cocaine	24.6	28.5	14.7	14.1	11.5	6.6	95.3
PCP	46.9	30.9	10.7	6.3	3.3	1.8	95.0
LSD	45.4	31.7	10.9	5.4	4.5	2.1	94.9
Heroin	56.2	27.2	7.3	4.7	3.2	1.5	95.4

TABLE 6

PERCEIVED PREVALENCE OF DRUG USE AMONG PEERS BY JUNIOR VS. SENIOR HIGH SCHOOL

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular item.

	About how many students in your grade use . . .						
	very few 0%	about 10%	about 25%	about 33%	about 50%	about 75-100%	response rate
JUNIOR							
Alcohol	6.3	16.4	17.5	14.7	26.6	18.6	96.3
Cigarettes	5.5	13.6	16.9	19.5	28.6	15.8	96.0
Marijuana	8.9	17.3	16.8	19.6	21.5	15.8	95.0
Inhalants	37.1	32.5	16.0	6.7	4.6	3.0	95.2
Barbiturates	42.8	30.6	14.4	5.9	3.6	2.5	95.2
Amphetamines	41.9	30.7	13.4	6.7	4.5	2.9	95.4
Serotonin	54.7	27.8	7.7	3.6	3.3	2.8	94.6
Cocaine	39.0	29.7	12.2	8.9	6.5	3.8	95.0
PCP	57.6	24.8	6.6	4.3	3.9	2.9	95.1
LSD	55.9	25.8	7.7	4.1	3.8	2.7	95.0
Heroin	60.8	23.2	5.7	4.1	3.5	2.7	95.2
SENIOR							
Alcohol	0.8	2.7	7.6	11.6	30.0	47.3	95.6
Cigarettes	1.2	5.9	12.3	26.3	32.4	21.9	95.5
Marijuana	1.8	6.5	11.5	18.8	32.7	28.7	93.9
Inhalants	29.5	36.3	18.8	10.6	3.3	1.5	93.7
Barbiturates	24.1	37.2	21.3	11.2	4.6	1.6	93.8
Amphetamines	20.3	29.7	21.5	15.6	8.4	4.5	93.7
Serotonin	45.9	33.7	11.9	4.3	2.3	1.8	90.7
Cocaine	16.9	28.5	16.9	16.5	12.3	9.0	93.9
PCP	47.5	32.3	10.9	5.8	2.0	1.5	92.9
LSD	42.1	33.6	12.3	5.4	3.8	2.8	93.2
Heroin	61.2	25.0	7.1	3.4	1.6	1.8	93.4

prevalence of alcohol (η^2 = 15.1%), cigarette (η^2 = 3.2%), marijuana (η^2 = 8.1%), barbiturate (η^2 = 2.0%), amphetamine (η^2 = 5.6%), and cocaine use (η^2 = 6.8%). Junior high students reported a greater prevalence of heroin use than did senior high students although this difference was not notable.

Drug Use Intentions

Table 7 summarizes the responses to the drug use intentions items (42a-42k) for each sex. Respondents indicated how often during the next year they were likely to use the listed substances. More males than females intended to use marijuana, PCP and heroin with greater frequency. However, none of these differences was notable. The only notable sex difference was obtained for intentions to use cigarettes, with 14.9% more females intending to smoke cigarettes and 7.6% more intending to be frequent smokers (η^2 = 2.7%).

Table 8 displays the drug use intention items by school level. Senior high students, relative to junior high students, reported that they intended more frequent use of alcohol, cigarettes, marijuana, barbiturates, amphetamines, cocaine, and LSD. Among these differences the following were notable: intended alcohol use (η^2 = 6.2%), marijuana use (η^2 = 3.5%), amphetamine use (η^2 = 3.2%), and cocaine use (η^2 = 4.3%).

Lifetime Drug Use

Table 9 shows lifetime drug use data for all respondents (items 40a-40k). These items ask respondents to indicate the total number of occasions in their lives they had used the listed substances. No more than 5% of respondents reported any use of heroin or serotonin; less than 16% reported any use of

TABLE 7

DRUG USE INTENTIONS BY SEX

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular item.

During the NEXT YEAR how often are you likely to use . . .

	Male					Female				
Substance	Not At All	Once or Twice	Occasionally	Frequently	Response Rate	Not At All	Once or Twice	Occasionally	Frequently	Response Rate
Alcohol	15.1	22.7	45.4	16.9	96.4	17.6	22.7	44.8	14.9	96.6
Cigarettes	70.8	11.8	8.2	9.2	96.1	55.9	13.6	13.7	16.8	96.4
Marijuana	51.2	11.8	18.8	18.2	95.9	54.4	14.4	16.8	14.3	96.5
Inhalants	90.8	5.1	2.1	2.0	96.2	92.5	4.6	2.0	0.8	96.5
Barbiturates	88.5	6.2	3.0	2.4	96.3	88.6	6.8	3.2	1.4	96.7
Amphetamines	80.9	9.8	5.6	3.7	96.2	78.4	9.9	8.4	3.3	96.6
Serotonin	93.5	96.1	3.8	2.5	95.8	96.1	2.5	0.8	0.6	96.3
Cocaine	76.2	10.5	7.8	5.6	96.2	78.6	8.6	7.6	5.1	96.7
PCP	94.0	3.2	1.1	1.8	96.2	96.4	1.9	1.3	0.4	96.8
LSD	89.4	5.8	2.6	2.2	96.4	92.1	5.0	1.8	1.1	96.7
Heroin	95.2	1.8	0.7	2.3	96.0	97.0	0.9	1.2	0.9	96.6

TABLE 8

DRUG USE INTENTIONS BY JUNIOR VS. SENIOR HIGH SCHOOL

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

During the NEXT YEAR how often are you likely to use . . .

	JUNIOR					SENIOR				
Substance	Not At All	Once or Twice	Occasionally	Frequently	Response Rate	Not At All	Once or Twice	Occasionally	Frequently	Response Rate
Alcohol	22.0	28.2	38.9	10.8	97.0	9.5	17.0	52.3	21.1	95.7
Cigarettes	64.8	14.7	11.0	9.5	96.7	61.8	10.6	10.9	16.7	95.4
Marijuana	61.3	11.9	15.1	11.8	96.8	42.6	14.9	21.6	20.9	95.3
Inhalants	90.5	5.4	2.3	1.8	97.0	93.0	4.4	1.7	0.9	95.4
Barbiturates	90.2	5.8	2.0	1.9	97.1	86.8	7.3	4.1	1.7	95.6
Amphetamines	86.9	7.2	3.7	2.2	96.8	72.0	12.7	10.5	4.8	95.6
Serotonin	94.4	3.3	1.2	1.2	96.8	95.4	3.0	0.6	0.9	94.9
Cocaine	85.8	7.2	4.2	2.8	96.9	68.3	12.4	11.3	8.0	95.5
PCP	95.2	2.1	1.4	1.3	97.0	95.4	3.0	0.9	0.8	95.5
LSD	93.4	3.4	1.6	1.7	97.0	88.0	7.4	2.9	1.7	95.7
Heroin	95.2	1.7	1.2	1.9	96.6	97.0	1.2	0.6	1.2	95.7

TABLE 9

LIFETIME DRUG USE, ALL STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	In your WHOLE LIFE, on how many occasions have you used . . .						
Substance	never	once or twice	3-9 occasions	10-39 occasions	40-99 occasions	100 or more occasions	response rate
Alcohol	9.1	15.8	18.9	23.3	14.3	18.6	99.0
Cigarettes	30.9	22.6	11.5	11.5	5.8	17.8	98.8
Marijuana	42.9	11.5	9.6	10.9	8.1	17.1	98.8
Inhalants	84.0	8.8	4.0	1.6	0.6	1.1	99.0
Barbiturates	84.2	6.8	4.3	2.5	0.8	1.4	99.2
Amphetamines	76.1	8.7	5.5	5.4	1.9	2.4	99.1
Serotonin	95.0	1.8	0.9	1.0	0.3	1.0	98.5
Cocaine	78.5	6.9	4.8	4.4	2.1	3.3	99.1
PCP	92.3	4.3	0.9	1.0	0.3	1.0	98.9
LSD	89.1	4.6	3.2	1.4	0.7	1.0	99.1
Heroin	95.8	1.7	0.7	0.5	0.2	1.1	99.1

inhalants, barbiturates, PCP or LSD; and less than 25% reported any use of amphetamines or cocaine. Marijuana had been used by 57% of respondents, cigarettes by 69%, and alcohol by 91%.

In this survey, serotonin served as an index of intentional over-reporting or exaggeration of use. As mentioned earlier, students who reported having negative attitudes toward serotonin may have confused it with an available substance. A better index of over-reporting than attitudes was the percentage who reported "substantial" use of serotonin in their lifetime. Only 2.3% of respondents reported having used serotonin on ten or more occasions. This figure represents our best estimate of over-reporting in the survey. It appears that 2.3% of the sample intentionally over-reported their lifetime substance use.

Tables 10 and 11 show reported lifetime drug use data for males and females respectively. Males reported greater lifetime use of alcohol, marijuana, inhalants, PCP and LSD. However, the only notable sex difference was for cigarette use (η^2 = 2.2%) where 73% of females versus 65% of males reported any lifetime use.

Tables 12 and 13 present reported lifetime use data for junior and senior high school students respectively. Except for inhalants, serotonin, and heroin, senior high students reported greater lifetime use of all drugs. Among these differences in lifetime use the following were notable: alcohol (η^2 = 9.7%), cigarettes (η^2 = 3.5%), marijuana (η^2 = 8.0%), amphetamines (η^2 = 4.4%), and cocaine (η^2 = 3.7%).

TABLE 10

LIFETIME DRUG USE, ALL MALE STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	In your WHOLE LIFE, on how many occasions have you used . . .						
Substance	never	once or twice	3-9 occasions	10-39 occasions	40-99 occasions	100 or more occasions	response rate
Alcohol	8.3	14.7	16.7	23.7	14.7	21.8	98.6
Cigarettes	35.2	24.8	11.5	10.0	4.6	13.9	98.5
Marijuana	40.6	11.8	8.9	10.1	7.7	20.9	98.6
Inhalants	80.7	10.9	4.2	1.7	0.7	1.8	98.8
Barbiturates	83.7	6.5	4.3	2.7	0.7	2.0	99.0
Amphetamines	75.8	9.7	4.7	5.0	2.0	2.8	98.9
Serotonin	93.8	2.2	1.0	1.1	0.4	1.5	98.2
Cocaine	75.8	7.9	5.4	4.7	2.3	3.9	98.9
PCP	91.5	4.5	0.8	1.5	0.1	1.6	98.8
LSD	87.0	5.1	3.8	1.6	0.7	1.8	98.9
Heroin	94.8	1.8	0.7	0.7	0.2	1.8	99.0

TABLE 11

LIFETIME DRUG USE, ALL FEMALE STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular item.

	In your WHOLE LIFE, on how many occasions have you used . . .						
Substance	never	once or twice	3-9 occasions	10-39 occasions	40-99 occasions	100 or more occasions	response rate
Alcohol	10.0	16.9	21.1	22.8	13.9	15.3	99.3
Cigarettes	26.3	20.2	11.6	13.0	7.0	21.9	99.2
Marijuana	45.3	11.2	10.3	11.6	8.4	13.2	99.1
Inhalants	87.4	6.6	3.7	1.4	0.5	0.5	99.3
Barbiturates	84.7	7.2	4.2	2.3	0.9	0.8	99.5
Amphetamines	76.5	7.6	6.4	5.8	1.9	1.9	99.2
Serotonin	96.2	1.3	0.9	0.8	0.3	0.5	98.9
Cocaine	81.3	5.9	4.1	4.0	1.9	2.7	99.3
PCP	93.2	4.2	1.0	0.5	0.5	0.5	99.0
LSD	91.3	4.0	2.6	1.2	0.7	0.2	99.4
Heroin	96.9	1.6	0.7	0.3	0.2	0.4	99.2

20.

TABLE 12

LIFETIME DRUG USE, ALL JUNIOR HIGH STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular item.

	In your WHOLE LIFE, on how many occasions have you used . . .						
Substance	never	once or twice	3-9 occasions	10-39 occasions	40-99 occasions	100 or more occasions	response rate
Alcohol	13.5	21.4	22.1	21.6	10.1	11.3	98.9
Cigarettes	35.4	25.2	11.0	11.5	5.3	11.2	98.7
Marijuana	55.0	12.0	8.6	8.1	5.7	10.6	98.9
Inhalants	85.4	7.4	3.4	1.7	0.6	1.6	99.2
Barbiturates	88.8	4.4	2.9	1.6	0.6	1.6	99.4
Amphetamines	85.0	7.3	3.2	2.1	0.8	1.7	99.2
Serotonin	94.6	1.6	0.8	1.1	0.5	1.3	99.1
Cocaine	86.6	5.9	2.3	1.8	1.3	2.2	99.2
PCP	94.2	1.9	0.8	1.2	0.5	1.4	99.2
LSD	92.9	2.7	1.8	0.8	0.6	1.2	99.3
Heroin	95.6	1.3	1.0	0.6	0.1	1.5	99.3

21.

TABLE 13

LIFETIME DRUG USE, ALL SENIOR HIGH STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	In your WHOLE LIFE, on how many occasions have you used . . .						
Substance	never	once or twice	3-9 occasions	10-39 occasions	40-99 occasions	100 or more occasions	response rate
Alcohol	4.2	9.7	15.1	25.4	19.1	26.6	99.0
Cigarettes	25.7	19.3	12.3	11.4	6.6	24.8	99.0
Marijuana	29.0	11.1	10.9	14.2	10.4	24.3	98.6
Inhalants	82.6	10.0	4.6	1.5	0.7	0.6	98.9
Barbiturates	78.8	9.7	5.9	3.5	0.9	1.1	99.0
Amphetamines	66.5	10.4	7.9	8.9	3.2	3.1	98.9
Serotonin	95.2	2.0	1.3	0.8	0.2	0.5	97.9
Cocaine	69.4	8.5	7.5	7.0	2.9	4.6	99.0
PCP	90.2	7.0	1.1	0.8	0.2	0.5	98.6
LSD	85.0	6.6	4.7	2.0	0.9	0.8	99.0
Heroin	96.3	1.9	0.5	0.4	0.3	0.7	99.0

Current Drug Use

Table 14 shows responses to the current drug use items for all students (items 41a-41k). Respondents indicated the number of occasions during the last four weeks on which they had used specific substances. Less than 3% of respondents reported any current use of serotonin or heroin, less than 7% reported any current use of PCP, inhalants, LSD, or barbiturates, and less than 14% reported any current use of cocaine or amphetamines. Cigarettes were used by 31% of respondents, marijuana by 37%, and alcohol by 63%.

The patterns of current use corresponded closely to those of lifetime use. That is, the order of substances in terms of prevalence (any reported use) was similar for both current and lifetime use. Interestingly, while more students reported having smoked cigarettes (69%) than marijuana (57%), fewer students reported current use of cigarettes (31%) than marijuana (37%). Many students who had tried cigarettes were no longer smoking them, whereas most students who had tried marijuana were using it currently (44% of those who have smoked cigarettes were currently smoking them; 64% of those who have used marijuana were currently using it).

Cigarette use on ten or more occasions during the prior four weeks was reported by 17% of respondents; marijuana use by 17%; alcohol use by 13%; and amphetamine or cocaine use by less than 4%. No other drug type was used this frequently by more than 1.6% of those responding.

Tables 15 and 16 present current drug use data for each sex. Males reported more current use of marijuana, serotonin, LSD and heroin. However, these differences were not notable. The only notable difference was obtained for cigarettes (η^2 = 2.5%), where 16% more females than males (23% vs. 39%) reported any current

TABLE 14

CURRENT DRUG USE, ALL STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	36.6	28.1	21.9	7.9	5.5	97.8
Cigarettes	69.5	8.0	5.2	4.0	13.3	97.6
Marijuana	63.5	11.2	8.8	6.3	10.3	97.4
Inhalants	94.5	2.7	1.3	0.8	0.8	97.8
Barbiturates	93.4	3.2	1.7	0.6	1.1	97.8
Amphetamines	86.2	6.7	3.6	2.0	1.5	97.8
Serotonin	97.3	0.9	0.6	0.3	0.9	97.2
Cocaine	87.6	6.0	2.9	1.8	1.7	97.7
PCP	96.5	1.3	1.0	0.2	1.0	97.8
LSD	94.5	2.9	1.3	0.4	0.9	97.8
Heroin	97.0	1.2	0.4	0.4	1.0	97.8

TABLE 15

CURRENT DRUG USE, ALL MALE STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates are the percentage of surveyed subjects responding to the particular item.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	35.4	27.5	22.8	7.9	6.5	97.7
Cigarettes	77.2	6.3	4.1	2.9	9.5	97.3
Marijuana	60.4	11.2	9.1	6.7	12.5	97.2
Inhalants	93.8	2.6	1.5	0.8	1.3	97.6
Barbiturates	93.4	2.6	2.0	0.5	1.6	97.7
Amphetamines	87.1	5.8	3.5	1.9	1.7	97.7
Serotonin	96.4	1.4	0.6	0.3	1.4	96.9
Cocaine	86.8	6.3	3.2	1.8	1.9	97.4
PCP	95.7	1.2	1.2	0.3	1.6	97.6
LSD	93.2	3.7	1.1	0.5	1.6	97.6
Heroin	96.2	1.1	0.6	0.4	1.7	97.6

TABLE 16

CURRENT DRUG USE, ALL FEMALE STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular item.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	38.0	28.7	20.9	7.9	4.5	98.2
Cigarettes	61.5	9.8	6.4	5.1	17.3	98.1
Marijuana	66.7	11.1	8.5	5.8	7.9	97.9
Inhalants	95.1	2.7	1.0	0.9	0.3	98.2
Barbiturates	93.4	3.8	1.5	0.7	0.6	98.2
Amphetamines	85.3	7.6	3.6	2.2	1.3	98.1
Serotonin	98.3	0.5	0.6	0.4	0.3	97.8
Cocaine	88.5	5.7	2.6	1.8	1.4	98.2
PCP	97.3	1.5	0.7	0.1	0.4	98.3
LSD	95.8	2.0	1.5	0.4	0.2	98.2
Heroin	97.8	1.2	0.2	0.5	0.3	98.2

use, and 7% more females (17% vs. 10%) reported use on 20 or more occasions in the prior four weeks.

Tables 17 and 18 present data on current drug use for junior and senior high students. There were no differences among senior and junior high students for current use of inhalants, serotonin, PCP and LSD. Seniors reported greater current use of alcohol (η^2 = 6.0%), cigarettes (η^2 = 2.6%), marijuana (η^2 = 3.9%), amphetamines (η^2 = 1.3%), cocaine (η^2 = 1.3%), and barbiturates (η^2 = 1.0%). These differences were all notable with the exception of barbiturates. Junior high students reported greater current use of heroin, but this difference was not notable.

Both frequency and prevalence of current drug use were greater among senior as compared with junior high students for a number of substances. Seven percent of senior high students had used alcohol on 20 or more occasions in the prior four weeks, versus 4% of junior high students. The comparable percentages for marijuana use were 15% versus 6%; for cigarette use 19% versus 8%; and for cocaine use, 2% versus 1%.

Tables 19-24 show data on current drug use for each grade level. Grade level differences were fairly consistent with the junior versus senior high comparisons for alcohol, cigarettes and marijuana. Prevalence of current drug use increased with grade level for cigarettes and for alcohol. Prevalence of marijuana use increased with grade level through the 10th grade but peaked at 11th grade and dropped slightly at 12th grade. The frequency of marijuana use also peaked at the 11th grade, as did the frequency of alcohol use. Frequency of cigarette use increased steadily through the 12th grade. Among these grade level differences in reported current use the following were notable: alcohol (η^2 =6.8%), cigarettes (η^2 = 2.7%), marijuana (η^2 = 4.5%), cocaine (η^2 = 13.0%),

TABLE 17

CURRENT DRUG USE, ALL JUNIOR HIGH STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	46.1	29.5	16.0	4.9	3.5	98.3
Cigarettes	74.3	9.1	5.3	3.4	8.1	98.2
Marijuana	71.7	10.3	7.1	4.6	6.2	98.2
Inhalants	93.9	2.8	1.3	1.0	1.1	98.3
Barbiturates	94.2	2.4	1.3	0.8	1.4	98.4
Amphetamines	90.9	4.8	1.5	1.2	1.5	98.3
Serotonin	97.1	0.9	0.4	0.5	1.1	98.0
Cocaine	92.1	4.2	1.2	1.1	1.4	98.3
PCP	95.8	1.5	1.2	0.2	1.3	98.4
LSD	94.7	2.4	1.4	0.4	1.1	98.3
Heroin	96.1	1.9	0.4	0.5	1.1	98.3

TABLE 18

CURRENT DRUG USE, ALL SENIOR HIGH STUDENTS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	25.9	26.7	29.1	10.1	7.4	97.3
Cigarettes	63.7	7.2	5.3	4.5	19.2	96.9
Marijuana	54.1	12.2	10.8	8.0	14.9	96.6
Inhalants	95.3	2.3	1.3	0.6	0.5	97.2
Barbiturates	92.3	4.2	2.2	0.4	0.8	97.2
Amphetamines	81.3	8.6	5.8	2.8	1.5	97.2
Serotonin	97.5	0.9	0.9	0.3	0.5	96.4
Cocaine	83.2	7.8	4.5	2.6	1.9	97.0
PCP	97.3	1.1	0.8	0.2	0.6	97.2
LSD	94.2	3.5	1.2	0.4	0.7	97.2
Heroin	97.9	0.3	0.6	0.3	0.8	97.2

TABLE 19

CURRENT DRUG USE, ALL SEVENTH GRADERS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	52.7	29.2	11.6	3.2	3.4	98.1
Cigarettes	78.8	8.8	4.4	2.5	5.5	98.1
Marijuana	78.7	9.1	5.5	1.9	4.8	97.9
Inhalants	91.2	3.6	1.3	2.1	1.9	98.4
Barbiturates	93.5	1.9	1.3	0.8	2.5	98.4
Amphetamines	91.2	3.4	1.0	1.9	2.5	98.4
Serotonin	95.8	0.8	0.6	0.6	2.1	97.5
Cocaine	91.6	3.4	1.5	1.5	2.1	98.4
PCP	93.3	1.9	2.5	0.2	2.1	98.4
LSD	91.6	2.7	2.5	0.8	2.3	98.1
Heroin	93.1	3.8	0.8	0.2	2.1	98.4

TABLE 20

CURRENT DRUG USE, ALL EIGHTH GRADERS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	48.8	28.4	15.4	4.5	2.9	98.7
Cigarettes	72.9	10.1	4.3	2.9	9.8	98.7
Marijuana	73.6	9.6	6.5	5.1	5.1	98.7
Inhalants	96.0	2.0	0.9	0.4	0.7	98.5
Barbiturates	96.2	1.8	0.7	0.4	0.9	98.7
Amphetamines	94.0	3.1	1.1	0.4	1.3	98.7
Serotonin	98.0	0.9	0.0	0.4	0.7	98.5
Cocaine	93.3	3.4	1.1	0.9	1.3	98.7
PCP	97.3	0.9	0.7	0.2	0.9	98.7
LSD	96.9	1.8	0.7	0.2	0.4	98.7
Heroin	97.5	0.9	0.0	0.7	0.9	98.5

TABLE 21

CURRENT DRUG USE, ALL NINTH GRADERS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	35.8	30.6	22.0	6.9	4.6	98.4
Cigarettes	69.4	8.2	7.1	5.0	10.3	98.1
Marijuana	61.5	12.1	9.2	7.7	9.4	98.4
Inhalants	94.4	2.7	1.9	0.4	0.6	98.4
Barbiturates	92.5	3.6	2.1	1.3	0.6	98.4
Amphetamines	86.6	8.8	2.3	1.7	0.6	98.1
Serotonin	97.5	1.0	0.4	0.4	0.6	98.1
Cocaine	90.6	6.3	1.3	1.0	0.8	98.1
PCP	96.9	1.7	0.4	0.2	0.8	98.4
LSD	95.2	3.1	0.8	0.2	0.6	90.4
Heroin	97.7	1.0	0.2	0.6	0.4	98.4

TABLE 22

CURRENT DRUG USE, ALL TENTH GRADERS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	27.9	29.2	27.2	9.4	6.3	97.0
Cigarettes	67.7	6.1	4.8	3.9	17.5	96.8
Marijuana	56.1	12.7	9.2	6.8	15.1	96.4
Inhalants	93.7	3.3	1.7	0.4	0.9	96.8
Barbiturates	90.6	4.1	3.3	0.4	1.5	97.0
Amphetamines	82.1	8.1	4.8	2.6	2.4	97.0
Serotonin	96.9	0.9	0.9	0.2	1.1	96.4
Cocaine	86.1	6.3	3.1	2.8	1.7	97.0
PCP	96.7	0.9	1.1	0.2	1.1	96.6
LSD	92.8	3.9	1.5	0.7	1.1	96.8
Heroin	97.6	0.0	0.9	0.2	1.3	97.0

TABLE 23

CURRENT DRUG USE, ALL ELEVENTH GRADERS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular items.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	26.8	22.2	30.1	12.9	7.9	97.8
Cigarettes	63.4	7.7	7.3	4.2	17.4	97.2
Marijuana	53.2	11.7	11.7	8.2	15.1	97.0
Inhalants	95.2	2.5	1.0	0.8	0.4	97.6
Barbiturates	94.0	3.5	1.5	0.4	0.6	97.6
Amphetamines	79.6	10.0	6.4	2.7	1.2	97.8
Serotonin	97.7	0.6	1.0	0.4	0.2	97.0
Cocaine	80.8	8.8	4.8	3.8	1.9	97.6
PCP	97.1	1.5	0.4	0.4	0.6	97.8
LSD	93.3	4.4	1.5	0.2	0.6	97.6
Heroin	97.7	0.6	0.2	0.4	1.0	97.8

TABLE 24

CURRENT DRUG USE, ALL TWELFTH GRADERS

Table values are the percentage of subjects selecting each response to the item; "response rates" are the percentage of surveyed subjects responding to the particular item.

	During the LAST FOUR WEEKS, on how many occasions have you used					
Substance	none	once or twice	3-9 occasions	10-19 occasions	20 or more occasions	response rate
Alcohol	23.5	29.3	29.3	10.4	7.5	97.2
Cigarettes	61.8	7.9	2.6	5.5	22.2	96.6
Marijuana	53.8	12.9	12.0	7.9	13.5	96.3
Inhalants	97.7	0.9	0.9	0.6	0.0	97.2
Barbiturates	93.0	4.9	1.7	0.0	0.3	96.9
Amphetamines	84.0	6.1	6.4	2.9	0.6	96.6
Serotonin	98.2	1.2	0.6	0.0	0.0	95.8
Cocaine	83.3	8.2	5.8	0.6	2.0	96.3
PCP	98.3	0.9	0.9	0.0	0.0	97.2
LSD	98.0	0.9	0.6	0.3	0.3	97.2
Heroin	98.5	0.3	0.9	0.3	0.0	96.6

amphetamines (η^2 = 1.3%), and LSD (η^2 = 1.0%). The only trend identified for the "hard" drugs was a tendency for 7th graders to report the highest or second highest frequency of use of barbiturates, amphetamines, LSD, and heroin. Furthermore, reported use of LSD and heroin was most prevalent among 7th graders.

There were several large changes in the prevalence of current use (any reported use) between grade levels. Prevalence of current alcohol use increased greatly between 8th and 10th grades, with the largest increase occurring between 8th and 9th grades (51% vs. 64%). Prevalence of current cigarette use largely increased between 7th and 8th grades (21% vs. 27%). Prevalence of current marijuana use increased steadily between 7th and 11th grades, with a large increase occurring between 8th and 9th grades (26% vs. 39%). Cocaine use increased in prevalence primarily between 10th and 11th grades (14% vs. 19%); amphetamine use increased in prevalence largely between 8th and 9th grades (6% vs. 13%). Current use of LSD apparently decreased in prevalence from 7th to 8th grade (8% vs. 3%) with a similar decrease occurring between 11th and 12th grades (7% vs. 2%).[4]

The prevalence of daily current use (20 or more occasions) across grade levels was fairly constant for most substances with two exceptions. The percentage of daily cigarette users increased steadily between 7th and 10th grades and increased again between 11th and 12th grades. A relatively large increase in daily cigarette use occurred between 9th and 10th grades (10% vs. 18%). An identical pattern obtained for daily marijuana users with a relatively large increase occurring between 9th and 10th grades (9% vs. 15%).

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[4]We believe that caution is required in interpreting the 7th grade data, particularly for the hard substances, as this group had the highest percentage of students reporting serotonin use. Current use on 10 or more occasions was reported by 2.7%. The next highest group was 1.3%. Thus, there appears to be more overreporting of substance use for this group.

Table 25 shows the frequency of cigarette use (item 4) for all students and for each sex and school level. Notable differences were found for both sex (η^2 = 1.8%) and school level (η^2 = 2.4%) with females smoking more than males and senior high students smoking more than junior high students. Slightly over 11% of all students reported smoking about one-half pack or more of cigarettes per day. Nine percent of the males smoked this much as compared with 14% of females. Only 6% of junior high students smoked this much in contrast to 17% of senior high students.

Summary of Sex Differences and School Level Differences

Table 26 displays a summary of the sex and school-level differences discussed earlier for each substance on each of the following variables: personal attitudes, perceived peer attitudes, perceived prevalence of use, intentions to use, lifetime use and current use.

The pattern of sex differences regarding personal attitudes, intentions, lifetime use and current use was similar across substances. Males rated higher on these variables for at least three substances, there were no differences for many substances, and females rated higher on all cigarette items. The only notable differences were for females on the cigarette attitudes, intentions and use items.

Females perceived peer attitudes to be more "pro-drug" and perceived higher prevalence of peer use for all substances. Notable differences were obtained on both items for cigarettes, inhalants, and barbiturates; for perceived prevalence, amphetamine and cocaine differences were also notable; and for perceived peer attitudes, the PCP difference was notable.

TABLE 25

FREQUENCY OF CIGARETTE USE BY SEX, BY SCHOOL LEVEL, AND FOR ALL STUDENTS

Table values are the percentage of subjects selecting each response to the item.

	How often do you smoke cigarettes?					
	not at all	once in a while	1-5 cigarettes a day	about 1/2 pack a day	about 1 pack a day	more than a pack a day
All Males	75.0	13.6	2.5	4.5	2.6	1.8
All Females	59.4	19.7	7.2	6.8	5.4	1.5
Junior High	70.1	19.2	5.0	3.3	1.7	0.8
Senior High	63.6	14.2	4.9	8.2	6.4	2.6
All Students	66.9	16.8	5.0	5.7	4.0	1.7

TABLE 26

OBSERVED DIFFERENCES FOR SIX VARIABLES FOR EACH SUBSTANCE BY SEX AND BY SCHOOL LEVEL

Substance	Personal Attitude		Perceived Peer Attitude		Perceived Prevalence		Intentions		Lifetime Use		Current Use	
	Sex	Sch Lev	Sex	Sch Lev	Sex	Sch Lev	Sex	Sch Lev	Sex	Sch Lev	Sex	Sch Lev
Alcohol	M	S*	F	S*	F	S*	-	S*	M	S*	-	S*
Cigarettes	F*	-	F*	S	F*	S*	F*	S	F*	S*	F*	S*
Marijuana	-	S*	F	S*	F	S*	M	S*	M	S*	M	S*
Inhalants	-	-	F*	-	F*	S	-	-	M	-	-	-
Barbiturates	-	S	F*	S	F*	S*	-	S	-	S	-	S
Amphetamines	-	S*	F	S*	F*	S*	-	S*	-	S*	-	S*
Serotonin	-	-	F	-	F	S	-	-	-	-	M	-
Cocaine	M	S*	F	S*	F*	S*	-	S*	-	S*	-	S*
PCP	-	-	F*	-	F	S	M	-	M	S	-	-
LSD	M	S	F	-	F	S	-	S	M	S	M	-
Heroin	-	J	F	J	F	J	M	-	-	-	M	J

1. - = No statistically significant difference observed (p>.01)
2. M = Males significantly higher (p<.01)
3. F = Females significantly higher (p<.01)
4. J = Junior high school students significantly higher (p<.01)
5. S = Senior high school students signficiantly higher (p<.01)
6 * = "Notable" significant difference observed (eta-squared $\geq$ 1%)

The obtained school-level differences indicate greater pro-drug attitudes, perceptions, intentions and behaviors for senior high students relative to junior high students, with one exception. With regard to heroin, junior high students had more pro-drug attitudes, perceptions and current use, but these differences were not notable. Across all variables, senior high students rated notably higher on alcohol, marijuana, amphetamines and cocaine items. Notable differences favoring senior high students were also obtained for perceived prevelence of cigarette and barbiturate use as well as current and lifetime use of cigarettes.

One-Year Trends in Current Drug Use

One year prior to the present survey the Drug and Alcohol Survey (DAS--Sec. 4/79, see Appendix A) was administered to secondary students in the Napa Valley Unified School District. The methodology and results of this survey are reported by Moskowitz, Schaps, Condon, Malvin and Martin (note 2). The following section describes the one-year trends in current (i.e., "during the last four weeks") drug use.

Figures 1 and 2 present the trends in current alcohol use for each grade level between Spring 1979 and Spring 1980. The percentage of 7th graders using alcohol in a four-week period immediately prior to the survey increased in 1980 (from 40% to 47%), and the percentage of 8th graders using alcohol decreased in 1980 (from 57% to 51%). The largest changes in alcohol use occurred for the cohorts of students in 7th-9th grade in the spring of 1979. By the following spring, the prevalence of current alcohol use in the 7th grade cohort (now in 8th grade) increased sharply from 40% to 51%. Similar trends were found in the 8th grade cohort (from 57% to 64%) and the 9th grade cohort (from 62% to 72%).

FIGURE 1

ALCOHOL: TRENDS IN FOUR-WEEK PREVALENCE OF ANY USE FOR GRADES 7-12

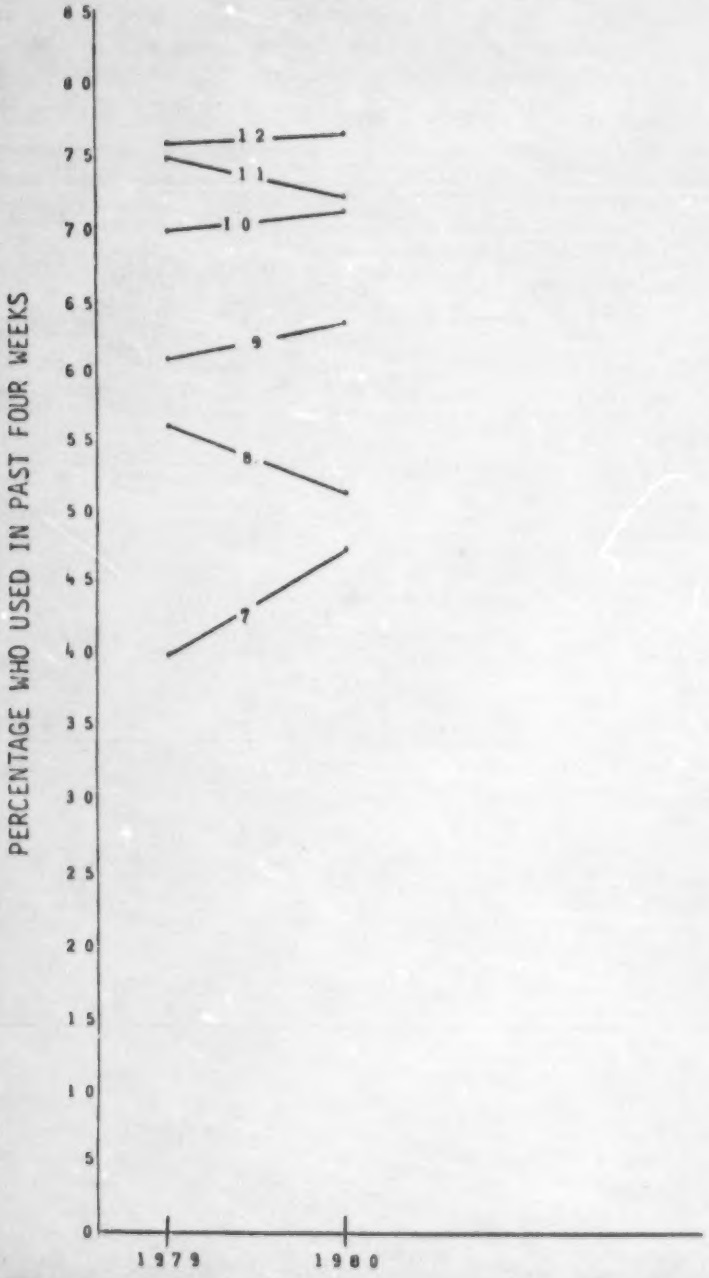


FIGURE 2

ALCOHOL: TRENDS IN FOUR-WEEK PREVALENCE OF DAILY USE FOR GRADES 7-12

Daily alcohol use (20 or more occasions) increased slightly (between 1% and 3%) or remained stable for the 7th - 11th grades and dropped slightly for the 12th grade in 1980. A similar pattern was obtained for the cohorts of students who were in grades 7-11 in 1979. Overall, the percentage of daily alcohol users was fairly constant across the two years.

Figures 3 and 4 present the trends in current cigarette use for each grade level. The percentage of students in each grade who smoke cigarettes remained fairly stable from 1979 to 1980. There was a small decrease in cigarette use among eighth and tenth graders. For the cohorts of students who were in grades 7-11 in 1979, there was virtually no change in the prevalence of cigarette use in 1980 (grades 8-12) with one exception. The prevalence of cigarette use in the 7th grade cohort rose (from 22% to 27%), by 8th grade, possibly indicating that a number of students initiate cigarette smoking between 7th and 8th grades.

The prevalence of daily cigarette use declined for nearly all grades, particularly for the 9th (from 15% to 10%) and 11th (from 22% to 17%) grades. The prevalence of daily use increased marginally for 7th graders. The cohort comparisons reveal increases in the prevalence of daily cigarette users from 7th (5%) to 8th (10%) grade and from 9th (15%) to 10th (18%) grade.

Figures 5 and 6 display the trends in current marijuana use for each grade level. The percentage of current marijuana users declined for most grades, primarily for grades 8 (from 35% to 26%), 9 (from 44% to 39%), and 12 (from 53% to 47%). Prevalence of current marijuana use rose for grade 7 (from 17% to 21%). For the 9th, 10th, and 11th grade cohorts (those in grades 10, 11, and 12 in 1980) there was no change in the prevalence of current marijuana use. Within the 7th grade cohort there was a

FIGURE 3

CIGARETTES: TRENDS IN FOUR-WEEK PREVALENCE OF ANY USE FOR GRADES 7-12

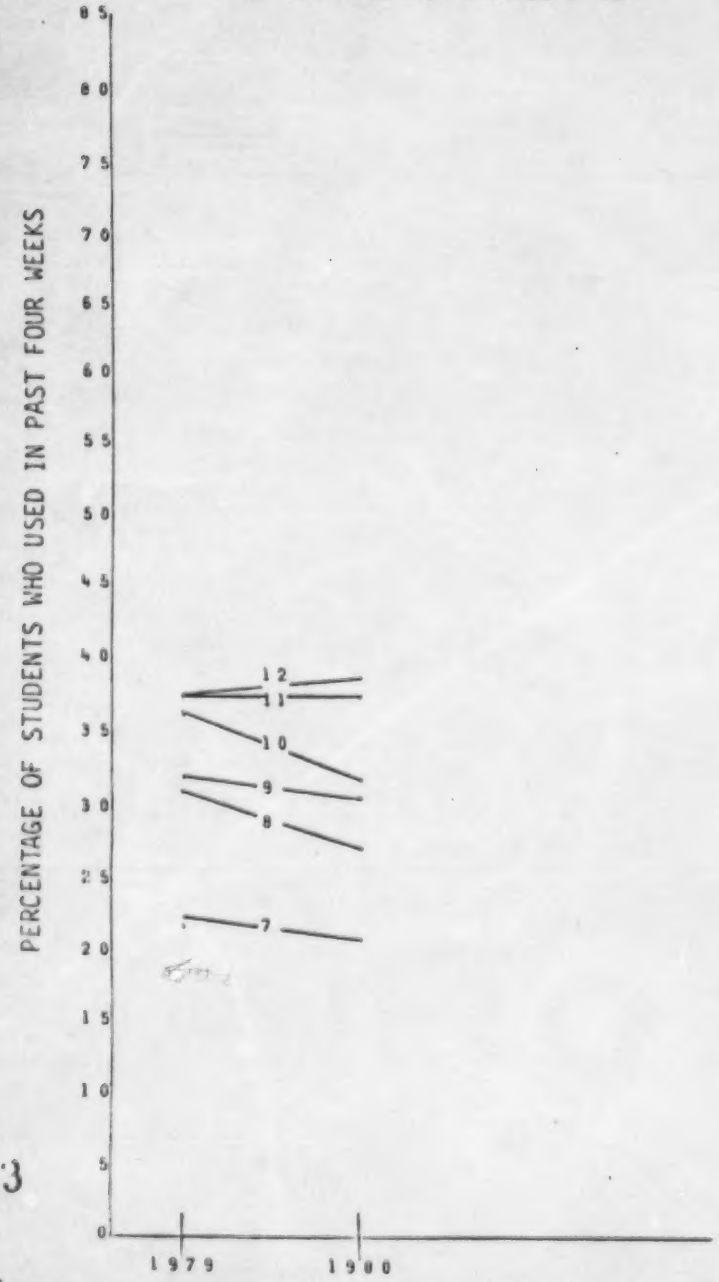


FIGURE 4

CIGARETTES: TRENDS IN FOUR-WEEK PREVALENCE OF DAILY USE FOR GRADES 7-12

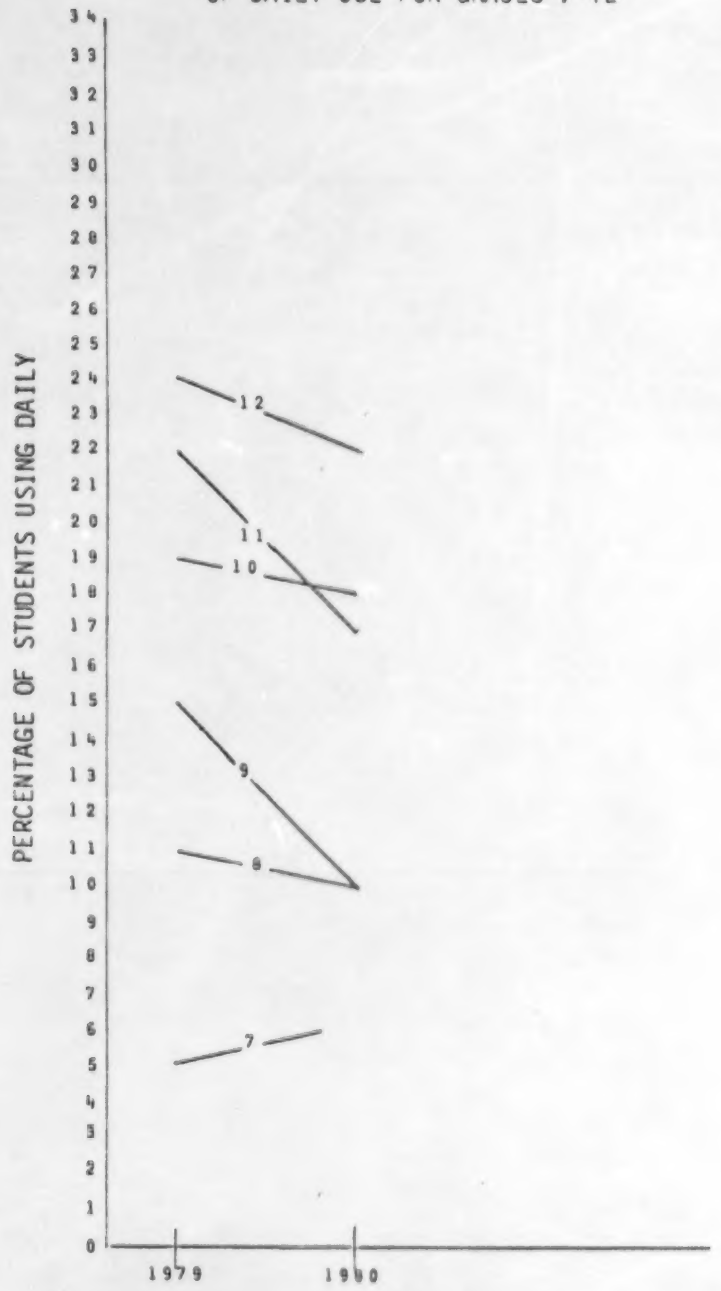


FIGURE 5

MARIJUANA: TRENDS IN FOUR-WEEK PREVALENCE OF ANY USE FOR GRADES 7-12

FIGURE 6

MARIJUANA: TRENDS IN FOUR-WEEK PREVALENCE OF DAILY USE FOR GRADES 7-12

sharp rise in current marijuana use, such that, the percentage of students in this group reporting current use went from 17% in 1979 to 26% in 1980. A rise in current marijuana use was also found for the 8th grade cohort (from 35% to 39%).

The prevalence of daily marijuana use declined for grades 8-12 and increased for grade 7. The cohort comparisons show a drop in daily marijuana use for grade 11 cohort (from 17% in 11th to 14% in 12th). The percentage of daily marijuana users increased for the 7th grade cohort (from 2% to 5%) and for the 9th grade cohort (from 12% to 15%).

Figures 7-12 present the trends in current use of "hard" drugs (barbiturates, amphetamines, cocaine, LSD, inhalants, PCP). Looking across each of the figures there is one striking and consistent trend. Seventh graders showed a dramatic increment in their reported current use from 1979 to 1980. In addition, the 7th grade prevalence of current use of LSD, inhalants and PCP was below all the other grades in 1979, whereas the 1980 data indicate that it was much higher than any other grade. We believe that the 7th grade data should be interpreted cautiously since there appears to be a tendency for 7th graders to overreport their use. In fact, the percentage of students who reported heavy serotonin use (10 or more occasions) was substantially greater in the 1980 sample of 7th graders than in the 1979 sample (2.7% vs. .7%). The prevalence of heavy serotonin use within the other grades remained fairly stable across the years and ranged from 0% - 1.4%.

With the exception of grade 7, there was very little change in the prevalence of current barbiturate, PCP and inhalant use (figures 7, 11, 12) within grade levels. For these three substances the prevalence of use within

FIGURE 7

BARBITURATES: TRENDS IN FOUR-WEEK PREVALENCE OF ANY USE FOR GRADES 7-12

FIGURE 8

AMPHETAMINES: TRENDS IN FOUR-WEEK PREVALENCE OF ANY USE FOR GRADES 7-12

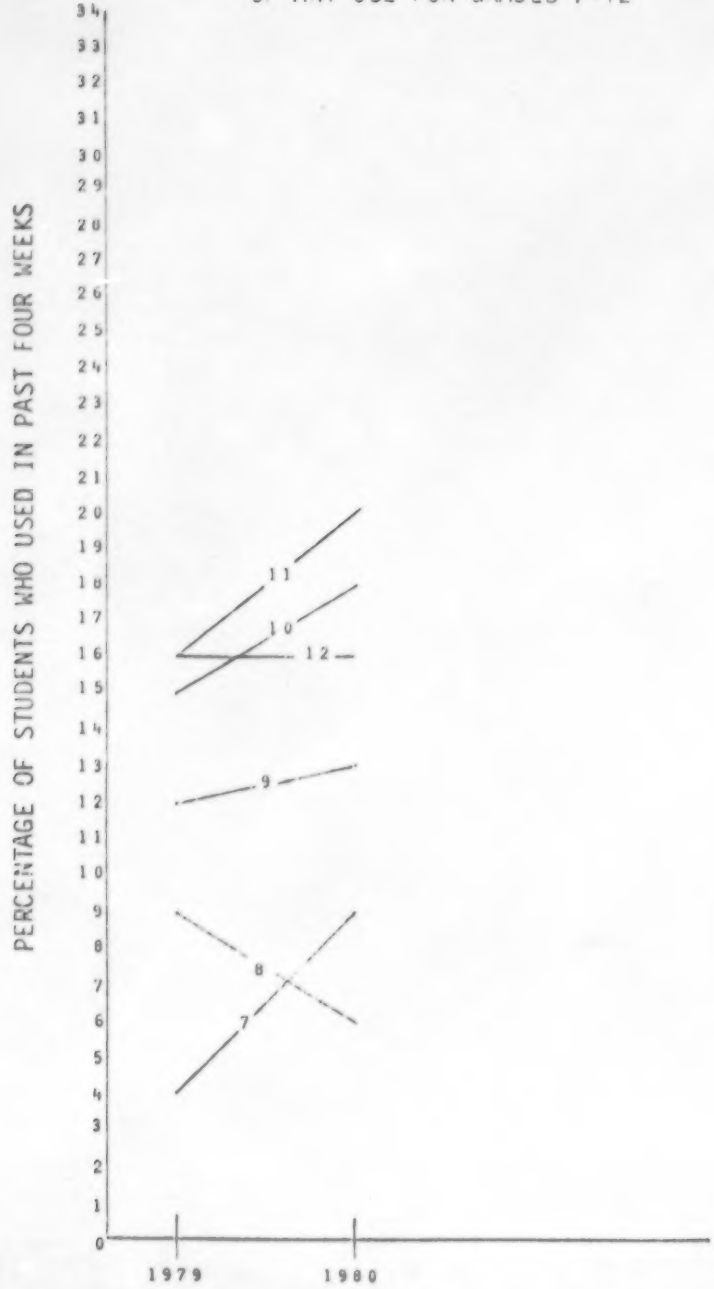


FIGURE 9

COCAINE: TRENDS IN FOUR-WEEK PREVALENCE OF ANY USE FOR GRADES 7-12

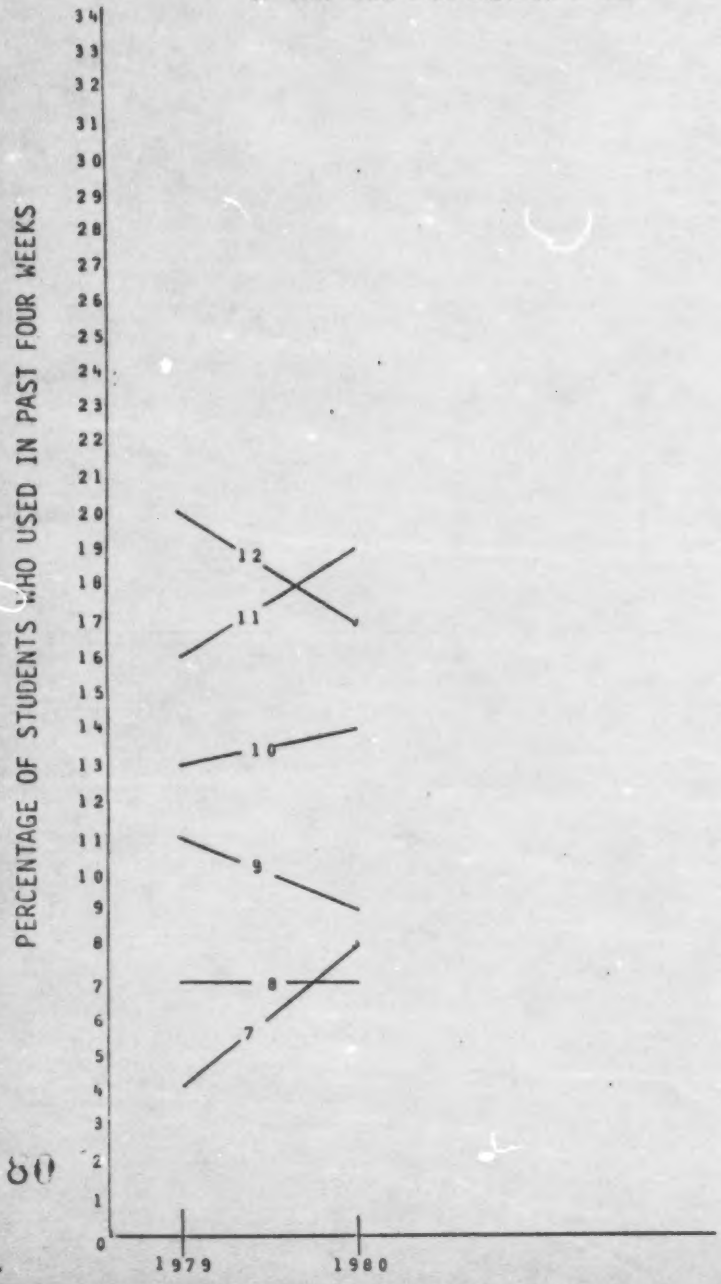


FIGURE 10

LSD: TRENDS IN FOUR-WEEK PREVALENCE OF ANY USE FOR GRADES 7-12

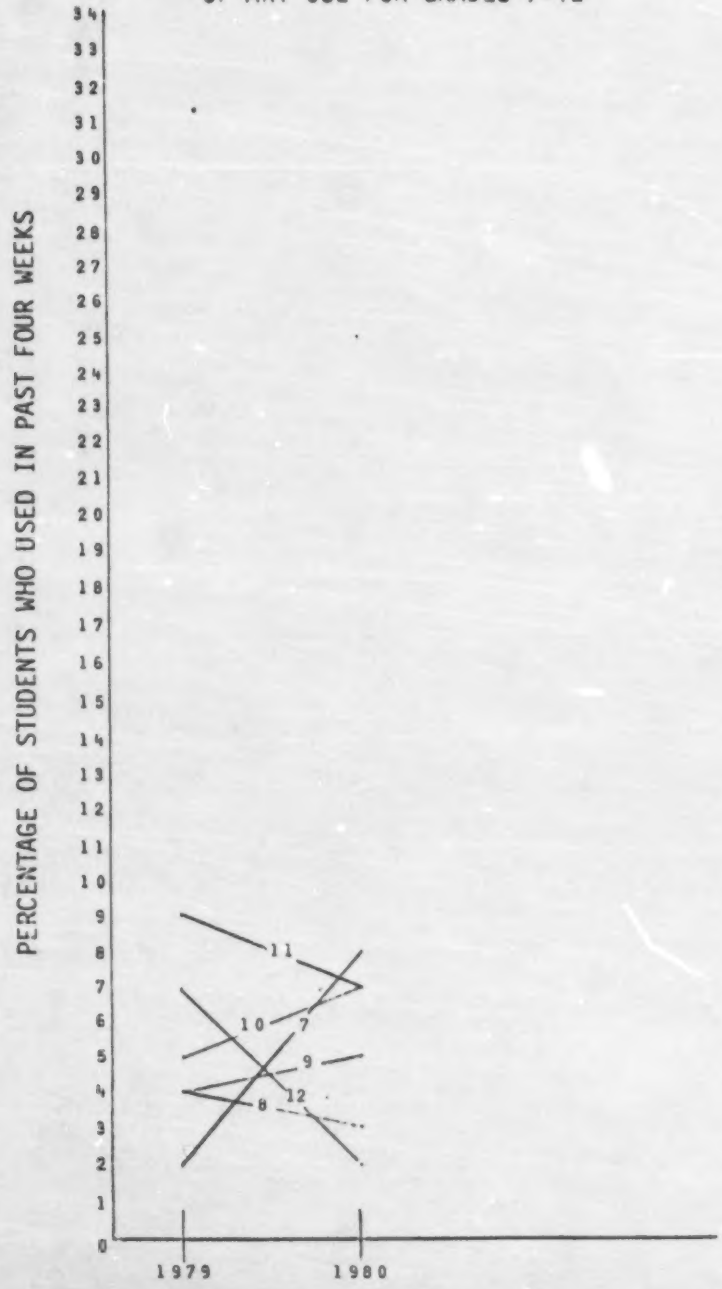
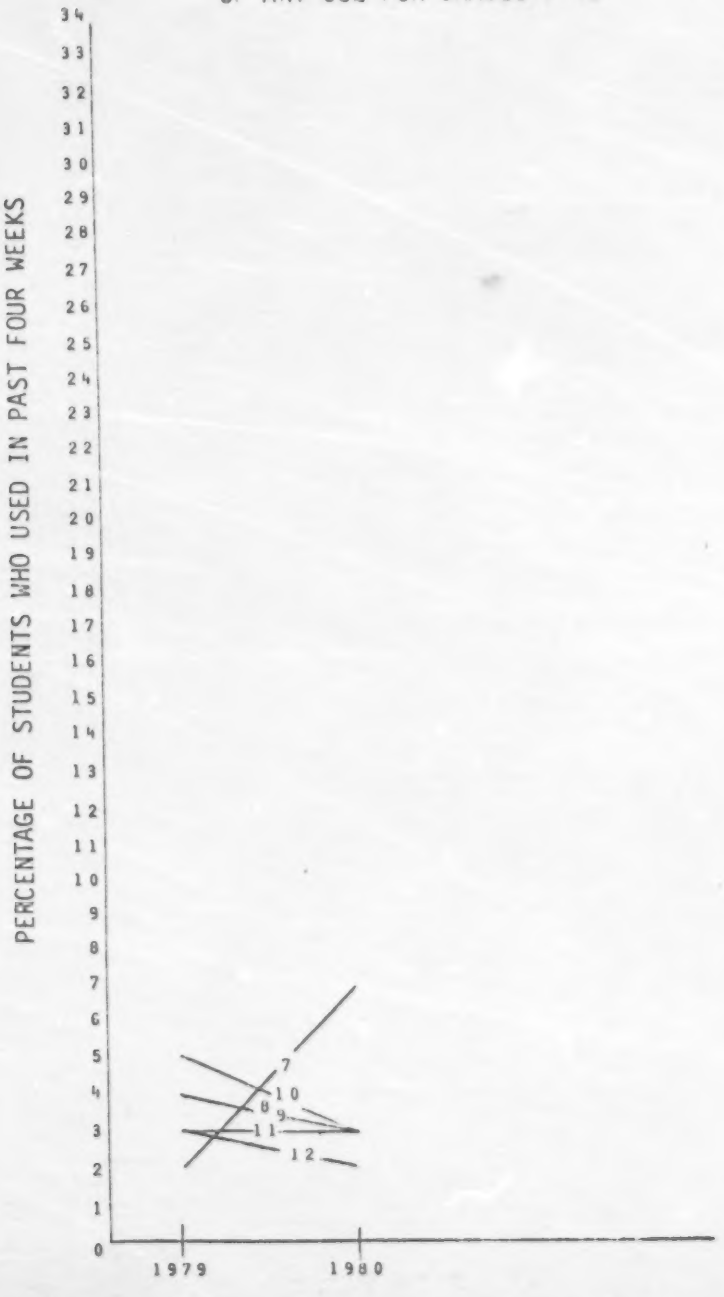


FIGURE 11

INHALANTS: TRENDS IN FOUR-WEEK PREVALENCE OF ANY USE FOR GRADES 7-12

FIGURE 12

PCP: TRENDS IN FOUR-WEEK PREVALENCE OF ANY USE FOR GRADES 7-12



the cohorts of students was fairly stable across the years. The greatest increases in the prevalence of amphetamine use (from 16% to 20%) and cocaine use (from 16% to 19%), ignoring the seventh grade data, were for grade 11 (figures 8,9). The largest drop in prevalence of use of amphetamines was in grade 8 (from 9% to 6%) and of cocaine was in grade 12 (from 20% to 17%).

Examining the cohort comparisons reveals a large shift between grades 10 and 11 in prevalence of cocaine use (from 13% to 19%). For students in grades 8, 9 and 10 in 1979 the prevalence of amphetamine use increased four to six percent by 1980. Figure 10 shows the trends in prevalence of current LSD use. Aside from the increase in 7th grade use, there is a sharp decline in prevalence of use among 12th graders (from 7% to 2%). Furthermore, the same cohort of students that was in grade 11 in 1979 and had 9% prevalence of LSD use, declined in prevalence dramatically by the 12th grade (from 9% to 2%).

REFERENCE NOTES

1. Moskowitz, J., Schaeffer, G., Condon, J., Schaps, E., Malvin, J. "Psychometric Properties of the Drug and Alcohol Survey," Report to the Prevention Branch, National Institute on Drug Abuse, April 1981.

2. Moskowitz, J., Schaps, E., Condon, J., Malvin, J., and Martin, G. "01 Year Annual Drug Survey," Report to the Prevention Branch, National Institute on Drug Abuse, December 1979.